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The aim of Project VISION (Vocational Information System Involving Occupational Needs) is the development of a model system of local occupational and employment information involving current and prospective manpower resources and requirements. Discussed in this presentation are the background and environment of the project, and some past, current, and future research activities. Although the project had, as its only basic guideline, the development of a model system of local occupational employment information to meet the needs of vocational education in Wisconsin, other areas of research were identified through reviewing existing information, defining the needs of vocational education, and answering problems referred by others in the field. During the early part of Project VISION, attention was focused on the language problem existing between vocational educators and employment service personnel. Current research projects include: (1) reviewing population and labor force data to build a data system on future supply, (2) identifying patterns of occupational mobility, (3) determining occupational needs on the basis of new and expanding industries, (4) working with the Medvin Technique, and (5) doing a comprehensive employer survey.

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Project VISION: An Approach to a Model System of Occupational Employment Information

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PROJECT VISION: An Approach to a Model
System of Occupational Employment Information

For those of you who are, as yet, unfamiliar with Project VISION, I'd like to explain that Project VISION is a research project being conducted by the Wisconsin State Employment Service under contract with the Bureau of Employment Security, through funds provided by the Office of Manpower Policy, Evaluation and Research. The overall objective of the project is hopefully contained in an explanation of what the letters in the word VISION represent: Vocational Information System Involving Occupational Needs. To be more specific, the project has as its overall aim the development of a model system of local occupational and employment information involving current and prospective manpower resources and requirements. It is hoped that the project will provide a significant step in assisting the United States Employment Service and its network of affiliated offices to meet the requirements of the Vocational Education Act of 1963.

With that broad description of Project VISION, I'd like to give you some idea of the background and environment for the project before going into a discussion of past, current and future activities in our research.

The idea for the project was first presented to our research bureau early in 1966 through contacts with BES. Subsequently, we presented our reactions to an early draft of the contract proposal and after two or three drafts of the study design had been prepared, agreement on the overall project proposal was reached. The initial target date for beginning the project was July 1, 1966. By September, we had heard nothing final, but we began selecting staff for the project which was formally approved in October 1966. I'd like to dwell for just a moment on the project staff because to me they are the ones who are making Project VISION what it was intended to be, an open-minded, comprehensive piece of research.

We began our staff recruitment by briefly describing Project VISION to all professional staff in the WSES and asked that those who would be interested in such an assignment contact the State Office. As we had hoped, we received a number of inquiries from around the state and from individuals with a variety of background. Every individual making an inquiry was personally interviewed, not only to further explain the project but also to ascertain the nature of their interest in research, in the project, and the special contribution they might make to Project VISION. This was important, because we see Project VISION as a tremendous challenge and yet we had no monetary or job security benefits to offer the staff selected. In addition, we felt the need for a number of specific capabilities which had to be brought to the project by the staff selected. We were extremely fortunate. We were able to put together a staff of five individuals who not only had a variety of educational and experience backgrounds but who were also known to be good, solid people unafraid to express an opinion or to accept responsibility.

During the first couple of months of our operation, a number of people wondered just what we were about. We did too. If you have an opportunity to look at the contract proposal, you will find that there are <u>at least</u> 23 different areas of research specifically suggested. We had understood that once the contract was approved and funded, national office officials would assist us in determining the priority areas of our research. Well, there were a few problems in accomplishing this and we were left pretty much on our own. We had one basic guideline: Develop a model system of local occupational employment information that will work in Wisconsin to meet the needs of Vocational Education. And that, my good friends, is not a very clearly defined plan of action.

Now, I've mentioned all of this because I think you've got to be aware of the setting to fully appreciate the work VISION has done, is doing and proposes to do.

Our first couple of weeks were spent getting oriented with each other and with the project. It didn't take us long to establish a few commandments for standard operating procedure. Basically these were: brainstorm at all times, if you've got an idea or opinion, speak up; don't take criticism personally, expect to be criticized and to criticize; within the boundaries of coordination and order, exercise whatever initiative you can. These were, and are, our rules and, believe me, if you haven't found research exciting, I suggest trying them out.

To say you're going to develop a model system of local occupational employment information is saying a pretty big mouthful. And yet, we had some pretty big ideas, among them the idea that our system would take care of all occupational employment information needs, not just those of Vocational Education.

On the practical side, we looked at it this way. There are already existing a number of techniques for providing such data as we are seeking and yet they aren't meeting the needs. Well, why? In trying to answer this question, we took a two-fold approach. First, we spent considerable time reviewing what was already available in the field, what had been available, and what was being developed. I know we still haven't seen everything, but we've seen quite a bit. In making this review, or researching the research, we attempted to isolate strengths and weaknesses of the various approaches in light of what we are after: a relatively inexpensive, reliable, feasible model that could be carried out in the minimum amount of time and could be a continuing program or information system. This is all well and fine, but on the other hand, what good is the model system if it doesn't fulfill the needs you're trying to meet. Well, what are the needs? This was our second approach, an attempt to clearly define the needs of Vocational Education. Again, we had documents to review, but in doing so we couldn't really come up with satisfactory answers. So we went to the Vocational Educators themselves, in this in-

stance, the Wisconsin Board of Vocational, Technical and Adult Education. I'd like to state here, that, from the beginning of our project, we were in constant communication with Vocational Education staff who had been specifically designated for such liaison by the State Director of VTAE. Now, in the course of normal conversation and meetings concerning the project, we just weren't getting anywhere in identifying Vocational Education's actual needs. So we put it in writing. But--when we presented a written list of questions to the Vocational Education staff, which were directly pointed to obtaining a comprehensive statement of occupational employment information needs, we were still unable to obtain a satisfactory answer. So, while we're continuing our liaison and communication, we're also trying other approaches to solve this problem. Besides, at this stage of the game, we were already working on a number of other ideas.

In the course of our orientation and review, which naturally involved discussions with many other individual resources, we seemed to be identifying more problems than answers. In addition, as word of Project VISION got around, many people failed to grasp the idea that we were a distinct and special research unit, not an operational unit, and, therefore, we were being asked to provide assistance and/or answers to many immediate needs. But, there was a silver lining in these problems and requests, since they provided initial direction to the project activity. For example, we were asked by the State Board of Vocational, Technical and Adult Education to provide direct assistance in determining, on the basis of occupational employment opportunities, the educational programs which should be offered in a significantly expanding vocational education facility within the Milwaukee SMSA. Well, Project VISION worked with another unit of our research bureau in trying to meet this request. Fortunately, we were able to gather together quite a bit of information which we felt would be useful in making these educational determinations.

On the other hand, some of our heretofore suspected problems were vividly brought to light. For example, outside of special studies, such as those conducted by the Census Bureau or industrial development groups, local employment service offices just do not have anywhere near adequate data pertaining to what is going on outside their immediate geographic area. A further point brought home by this activity, was that the mere fact that useful information is provided does not mean it is going to be utilized or be a determinant in decision making.

Actually, our experiences and problems, while a bit frustrating, merely served to whet the appetities of the project staff and eventually resulted in what we feel to be significant contributions. Again an example. It shouldn't be any news to most of you that there is a language problem between vocational educators and employment service personnel. Educators speak in the language of curriculum and ES personnel speak in the language of the DOT. So, you've got a problem and VISION was fortunate enough to get a crack at solving it. HEW Office of Education officials had been doing some work on standardizing vocational education curriculum titles and codes. Mr. Norman Huth, a Project VISION staff member with eighteen years experience as an occupational analyst, spent a few weeks in Washington with HEW and BES staff and then returned to Wisconsin to accomplish the task of clustering, arranging, or matching DOT titles with curriculum titles or areas. His work covered the seven primary areas of Vocational Education (Agriculture, Distributive Education, Health, Home Economics, Office Occupations, Technical Education and Trade and Industry). When completed, the bulk of the work itself was impressive but the reactions have been even more impressive. We were told by Wisconsin Vocational Education representatives that we had accomplished a significant breakthrough. As a demonstration of the document's acceptability, I'm happy to say the Wisconsin State Board distributed a copy to each of its local schools and the WSES furnished a copy to each of its local offices. We understand that the document will be released nationally in the near future. Another chapter on this topic, but accomplished by a different

unit within our bureau, is a reverse arrangement of the manual so that DOT titles are listed first, rather than curriculum. In effect, VISION has made a major contribution toward solving the ES-Voc. Ed. terminology gap.

There were other areas of research which also received attention during the early part of Project VISION. For the most part, they involved areas specifically mentioned in the contract proposal, but the work accomplished in these areas is not conclusive, nor, it is hoped, concluded. As I said earlier, this project is a mouthful, and priorities were not predetermined. However, you can't sit around waiting for direction when you're working within a specified time limit. On the other hand when you're aware that the establishment of priorities is imminent, you don't become involved in major commitments. Basically, then, what we did was scratch the surface in a number of different areas suggested by the contract proposal. I'd like to briefly mention these, tell you what was done and what, if anything, is continuing. Before going into that though, I must make it clear that we don't claim credit for originality in all of these areas. The fact is, many of the hypotheses we were researching have already been widely suggested, discussed, and in some instances, agreed upon. Our purpose, however, was to document our findings in order to substantiate or reject such hypotheses.

Naturally enough, we reviewed population and labor force data available from the Census and other sources such as the Wisconsin Bureau of Vital Statistics and the University of Wisconsin Department of Sociology. In terms of what we were after, occupation employment information on a local labor market basis, the available data just isn't adequate enough. It is true that attempting to combine information from the various disciplines broadens the scope of your data. However, the lack of standardization between disciplines on overlapping areas seriously hampers the merging of data. Of course, to Project VISION, the major gap is occupational detail.

We laid some groundwork for building a data system on future supply based on what is now in training and what is expected in the way of future training. We talked with secondary and vocational school officials, apprenticeship representatives, private school representatives and representatives of the military. Oddly enough, the secondary schools were the most willing to cooperate at least on the basis of what they indicated to us. What we did learn though, was that in order to build a model system incorporating a continuous feeding in of supply data, you're going to have to recognize and overcome the barriers caused by the different organizational structures of each supply source.

Using the application and order files of the WSES offices in the Milwaukee SMSA, we attempted an analysis of occupational mobility and job shifting among our applicants. We had hoped that we might be able to identify occupational career ladders or patterns of occupational mobility. We were able to get some preliminary ideas on this but not enough to really stand on as yet. There are problems involved in this area of work, such as the coverage of your study, the timing of your study and current labor market opportunities. This area, along with more attention to labor force mobility or migration will, hopefully, receive additional consideration before we're finished.

We've given some attention to the idea of growing occupational needs on the basis of new and expanding industries. We utilized two data resources here, the U. C. covered employer records and data from what was formerly known as the Wisconsin Department of Resource Development. In both instances, the data was not very helpful to us, but for different reasons. In the case of the U. C. data, records were not maintained in the detail we required to identify what might be significant changes. In the case of the Department of Resource Development data, we found, through analysis that what was being recorded as new or expanding industry was not

necessarily so. Company or corporation mergers did not necessarily mean new employment opportunities and new buildings sometimes represented merely storage warehouses or location shifts again without changing the employment opportunities.

While we were pursuing these ideas and others, Mr. James Hoppenjan, Project VISION Coordinator, spent a month in Washington working with Bruce McKinlay and Odessa Dubinsky, of the Oregon and California ES agencies respectively, in developing the proposed BES companion handbook to the BLS matrix.

The variety of all this activity might lead some to believe we were taking a scattergun approach to just about everything. However, remember our circumstances. Furthermore, while all this was going on, we continued our review of a multiple of documents on labor market information programs. Tying this information together with what we were finding out in the areas which I've mentioned, and together with discussions held with users and evaluators of such information, we mentally and verbally developed a fairly good idea of what a model occupational employment information system could and should consist of. We then took this information and prepared a list of deficiencies recognized among and between the various systems now in use. We also prepared a list of the recommended components of a model system. What we're trying to do now is find a technique, or techniques, that will not only overcome the deficiencies, but incorporate a significant majority, if not all, of the recommendations.

We began periodic meetings with national office representatives in December of 1966 and, through these, began to focus on more specific directions for Project VISION activity. In effect, this meant we were ready to quit merely scratching the surface and get down to full-fledged testing of a number of hypotheses we now had.

Our first actual test of one specific technique was that of the Unfilled Opening-Occupational Outlook Handbook technique as suggested by Mr. Norman Medvin of BES.

In January of 1967, Mr. Medvin visited Wisconsin and we worked with him in developing the step-by-step approach for applying his technique. We then implemented this technique in the Milwaukee SMSA by reconstructing our data components for the unfilled openings. I won't go into detail here concerning that test, but should mention we did have problems in selecting basic data due to the issuance of the third edition DOT and the timing and results of job vacancy studies in the Milwaukee SMSA. However, we were able to accomplish not only the refinement of the methodology, but also a good representative test of the technique. All the while of course, we had been maintaining communication with the State Board of Vocational, Technical and Adult Education and when we presented our preliminary results to them, they incorporated our findings, in toto, into their Annual Plan of Projected Program Activities. This may sound like good news, and it is. Here in a little over a month's time, we had developed a package of data for Voc Ed. which they found so acceptable, that they requested WSES to put the system into statewide operation. But Project VISION staff, among others, was not totally satisfied. We didn't feel this, as basically developed, was the answer we were after. We had a number of reservations and questions and discussed them with Mr. Medvin, with Voc Ed., and others. Then, we began to be constructive and developed what we called our addendum to the Medvin Technique. Putting the two of them together we had a package which not only identified current and future occupational employment opportunities, but also incorporated our work on curriculum - DOT clustering, and provided a discussion of pertinent data useful not only in curriculum planning but also in counseling and in considering supply and demand determinants. But, we weren't finished yet. By now our contract agreements precluded any work outside the Milwaukee SMSA, but that didn't mean we couldn't review our work in respect to its application in other geographic or economic areas. As a matter of fact, our Voc Ed representatives made it strongly clear that the need for data is much more urgent in the non-metropolitan

areas than it is in the metropolitan areas. Regarding the Medvin Technique, from the beginning, we felt it had some usefulness in all areas but at the same time recognized that there were some problems involved. As only one example, job vacancy studies are used for really two purposes in this technique: one as a test of unfilled openings as a representative of occupational employment activity; the other as a blow-up factor in the development of your information. I think we all know job vacancy studies have been conducted to a very limited extent thus far, and even then not everyone is advocating them. Well, that's a problem in universal application of the Medvin Technique and there are others. Our feeling is this, at the present moment it is a tool which should be fully and intelligently utilized in lieu of a better system. Furthermore, it is not the answer to a model system but may, in the long run, find itself a part of a model system. The latter seems only reasonable, since it represents already existing data and, therefore, should be used.

Up to this point, our contacts with employers or employer associations had been primarily in the nature of exploratory discussions. We had had discussions and actually expected to do some sort of employer survey, but the words Area Skill Survey kept popping up, and if you've had experience at the down-to-earth-actually-doing-the-work-level, you've got reservations about Area Skill Surveys. On top of that, it seemed that plenty of Area Skill Survey evaluators had already found employment. We didn't know if there was room for us. After discussion with OMPER and BES, it was agreed that we would do a comprehensive employer survey that, while fundamentally an Area Skill Survey, incorporated a number of experimental or innovational features. Actually, what we've got is an overall survey with a number of sub-surveys built in, each testing one or more hypotheses. The overall, or umbrella, sample and the sub-samples were all drawn according to statistically valid procedures. In developing our questionnaires and laying the groundwork for our survey,

we received the assistance and cooperation of the Milwaukee Metroplitan Association of Commerce and the Vocational Education staff. We explained that, while we would be collecting data they desired (and which would be made available to them), we were also doing some experimentation. In publicizing the survey, the usual news media were used. In addition, the Association of Commerce was able to reserve the Wisconsin Telephone Company auditorium in Milwaukee and invited their membership to attend an advance meeting to discuss the survey. On August 10, 1967 we mailed questionnaires to 1,200 employers in the Milwaukee SMSA. Three weeks later, we had a follow-up mailing of 800 questionnaires. We maintained a day-to-day check on which employers had responded to the survey and conducted telephone and personal visit follow-ups to selected employers. As of mid-September, slightly over fifty percent of our total sample had returned questionnaires, and among the sub-samples our return rates run from forty-two to fifty-two percent. There are two exceptions above that range which represent special employer or industry groups. In this employer survey, we're trying to answer a number of questions pertinent to the development of a model system. Among these questions are:

1. Of what significance is the questionnaire design in terms of simplicity, scope of data requested, nature of data requested and manner in which it is requested?
2. Of what significance or importance are the economic assumptions with which we preface our request for data?
3. After determining the amount of data employers are <u>willing</u> to provide, how reliable is the information they <u>do</u> provide?
4. How many employers actually engage in manpower planning, and more importantly, <u>occupational</u> manpower planning?
5. What is the identity and position of the individual preparing the survey return? Is this the same or different from the indivudual doing manpower planning?
6. How has plant modernization affected occupational employment?

Actually, I could continue for some time, but I hope you've got the idea by now. Lest there be some misunderstanding, however, outside of statistical data, most of our information is being collected through the employer interview stage which is still in process. Probably one of the most significant questions we're researching in this survey is that of whether or not an employer survey, much more limited or specific in coverage, can produce the same or better results than those now obtained through the current sampling procedures. In effect, if we can produce an industry expert approach to employer surveys, we might solve part of the time and cost problem.

How do we propose to answer all our questions with all of the various sub-samples we've developed? Well, first we'll treat all of our data as one package and summarize our findings from it. Then, we'll draw out our other samples, summarize each one individually, ask ourselves the same questions and then do a comparative analysis of each sample against the others. We sericusly hope that all of our various questionnaires can be related one to another. Actually, the analysis of all of the material we're collecting will be the most important part of our study and don't think we don't realize it. But, we're anxious to get at it because we expect to have good documentation for whatever recommendations we make for a model system. Incidentally, we've agreed from the beginning of the project that our recommendations would include comments on such resource items as personnel, equipment and financing.

I indicated earlier that our work also includes a review and evaluation of various other manpower projection techniques. We are presently preparing for a test of Method A of the BLS Industry-Occupation Matrix. We'll probably be conducting this sometime after the first of the year. The results of this test will again be compared to the results of our other tests.

Another aspect of our work with other techniques is what we refer to as an "arm-chair analysis" of techniques, such as the Battelle Memorail Institute study, the Denver study and possibly one or two others. What we'll do here is a comparative analysis of the various techniques in terms of complexity, methodology, time involved, cost, required expertise and final product. On such a basis, and in relation to all of our other work, we'll offer recommendations as to the adaptability of such techniques to a model system.

One other area in which we're doing some work is in the development of a simplified, standardized method of preparing occupational briefs, descriptions, or job guides. Here again, as with clustering, red flag words don't mean anything to us. We have a specific objective that we all understand and as long as we continue to communicate with one another, we're okay. The reason we want the job guide, or whatever you call it, is to have a vehicle for providing more than just occupational projection data. What we're trying to accomplish with our overall package is to utilize both labor market and occupational analysis expertise in disseminating occupational employment information.

With apologies to my colleagues on Project VISION, that concludes my remarks. I offer the apologies because I've only hit some of the high spots. We've got a tremendously challenging and exciting project and I'm confident that Project VISION will produce results that are of the same characteristics.